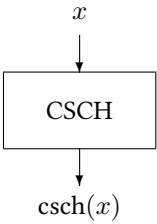


Block CSCH

The CSCH block returns the hyperbolic cosecant of its input.



Name	CSCH
Function	fb0068
Inputs	1
Outputs	1
Parameters	0
Strings	0
Group	S

Inputs

- | | |
|---|----------------|
| 1 | Any signal x |
|---|----------------|

Outputs

- | | |
|---|---------------------|
| 1 | Hyperbolic cosecant |
|---|---------------------|

Parameters

None

Strings

None

Description The hyperbolic cosecant is defined as

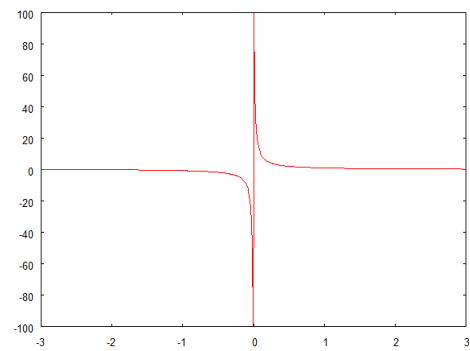
$$\operatorname{csch}(x) = \frac{2}{\exp(x) - \exp(-x)}$$

In order to avoid division by zero, $\operatorname{csch}(x)$ is set to zero for $|x| < 10^{-5}$.

csch.vseit



A [DO](#) block varies x from -3 to 3 in steps of 0.01 . The [CSCH](#) block calculates $\operatorname{csch}(x)$ and the [PLOT](#) block displays the graph on screen.



See also Blocks [COSH](#), [COTH](#), [SCH](#), [SINH](#), [TANH](#).